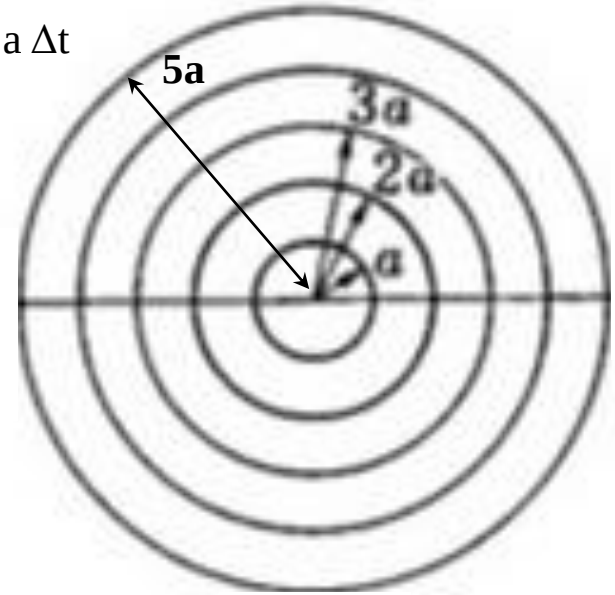
M=0 , u = 0

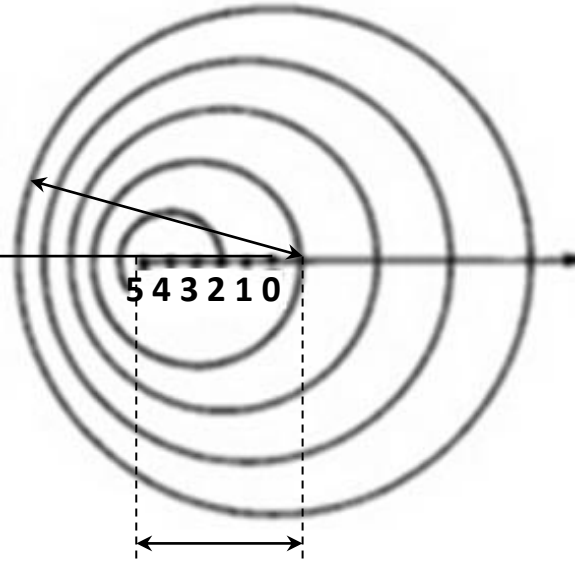
$s_{perturbazione} = a\,\Delta t$



$0 = s_{Corpo} < s_{perturbazione}$

$s_{Corpo} = u\,\Delta t = 0\,\Delta t = 0$

M<1 , u < a



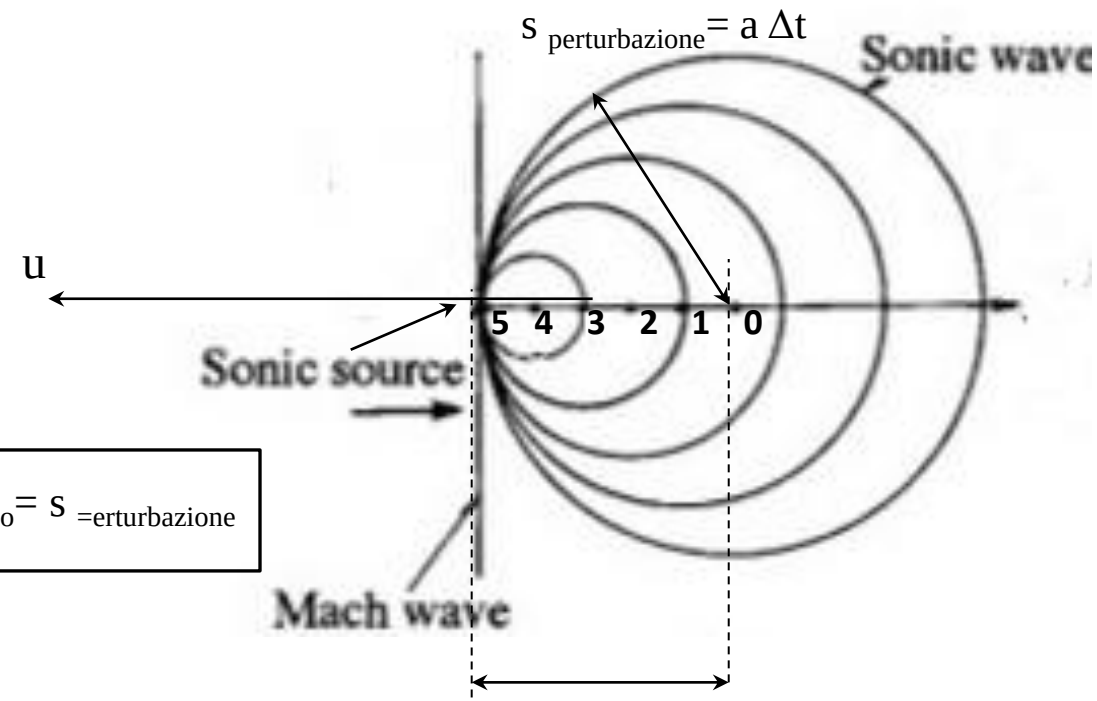
$s_{perturbazione} = a\,\Delta t$

u

$s_{Corpo} < s_{perturbazione}$

$s_{Corpo} = u\,\Delta t$

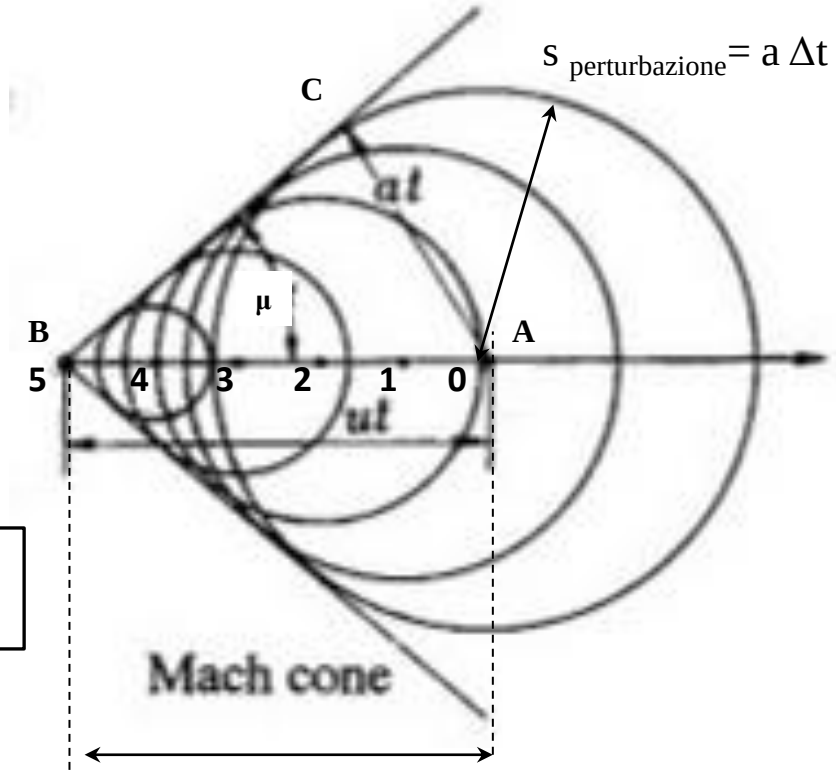
M=1 , u = a



s Corpo= s =erturbazione

s Corpo= u Δt= a Δt

M>1 , u > a



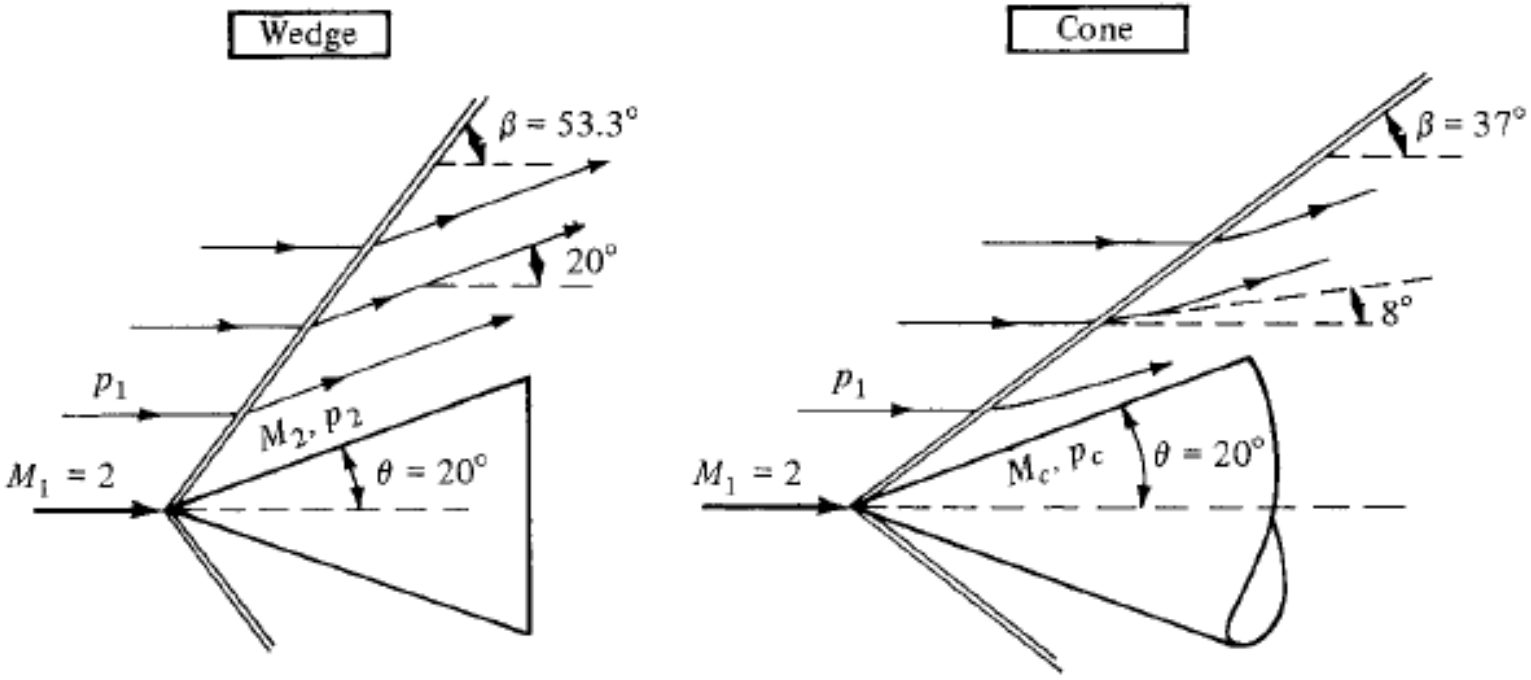
$s_{perturbazione} = a\,\Delta t$

$s_{Corpo} > s_{Perturbazione}$

$s_{Corpo} = u\,\Delta t$

2D

3D



Supersonic conical flow

Anderson, John D., Jr.: *Modern Compressible Flow: With Historical Perspective, 3d ed.,* McGraw-Hill Book Company, New York, 2003.

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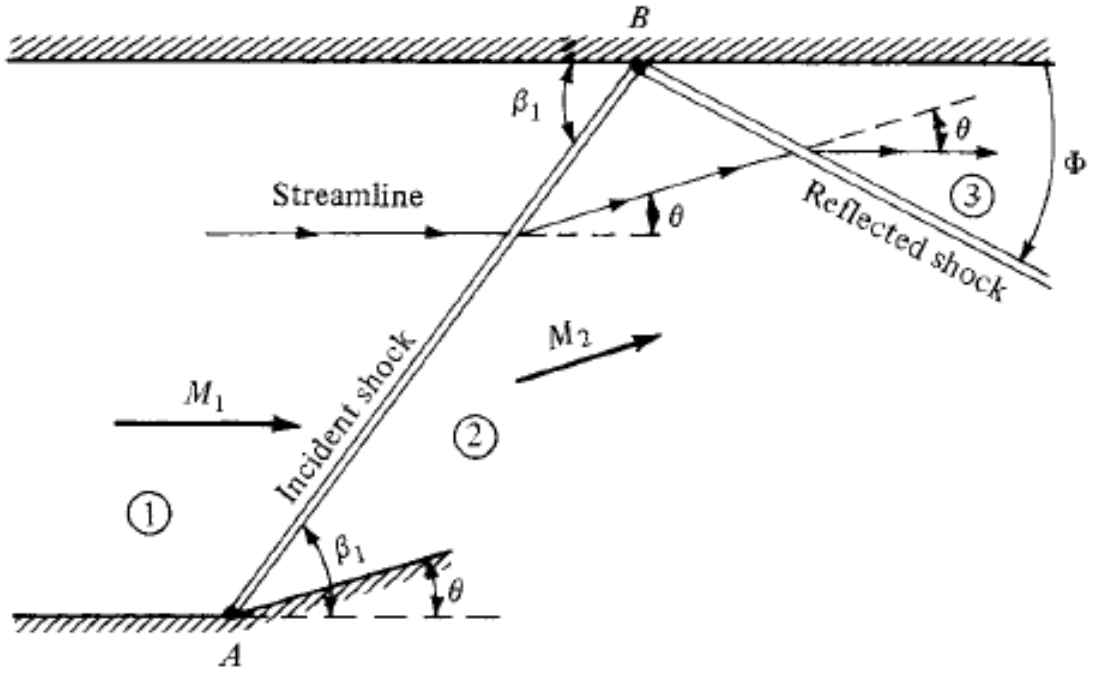
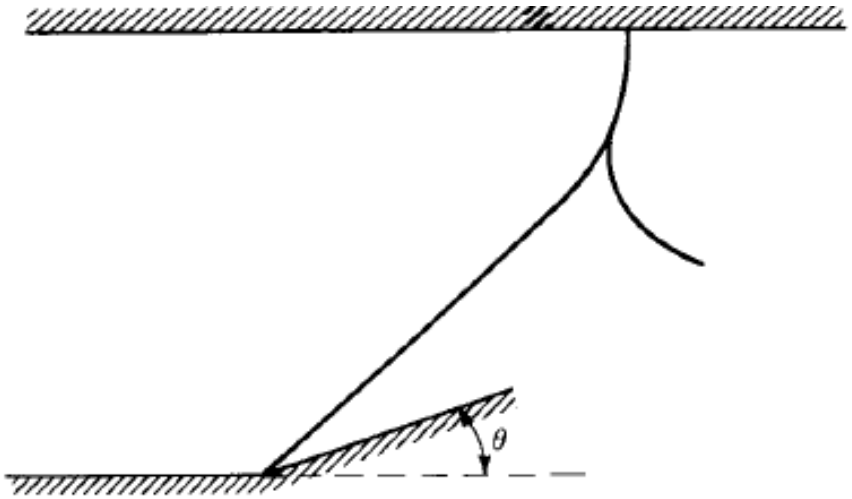
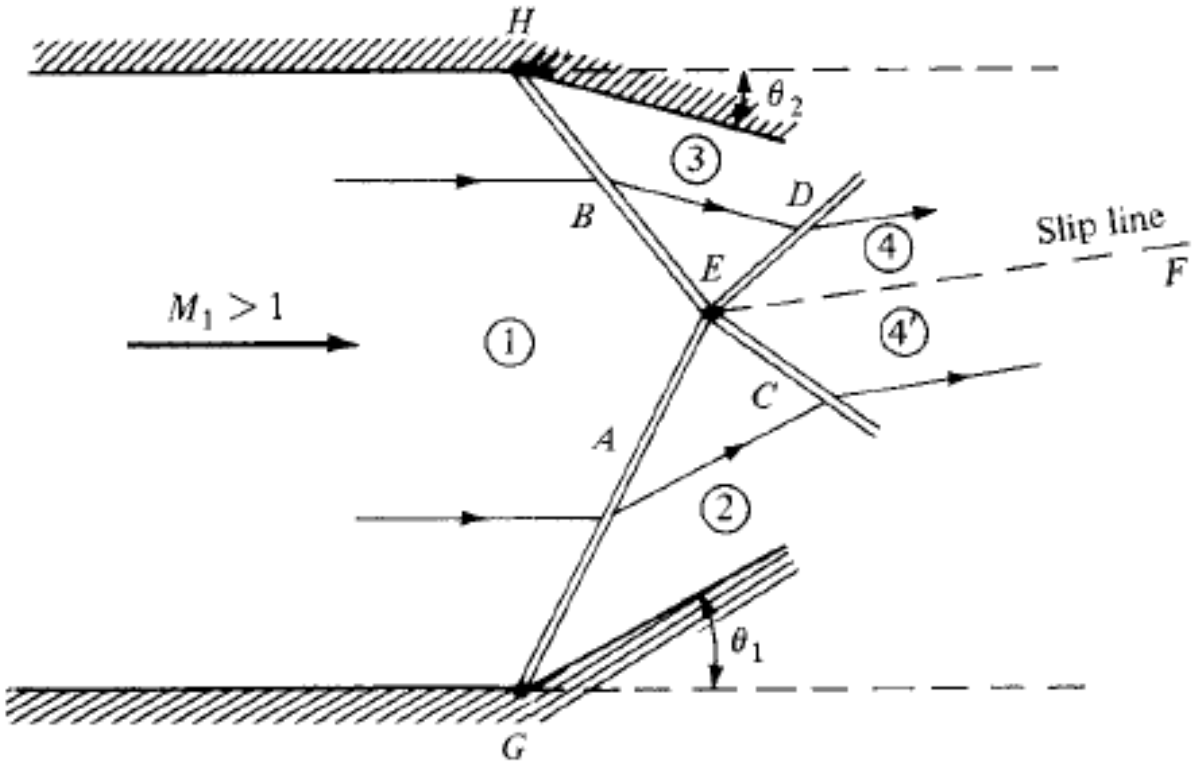
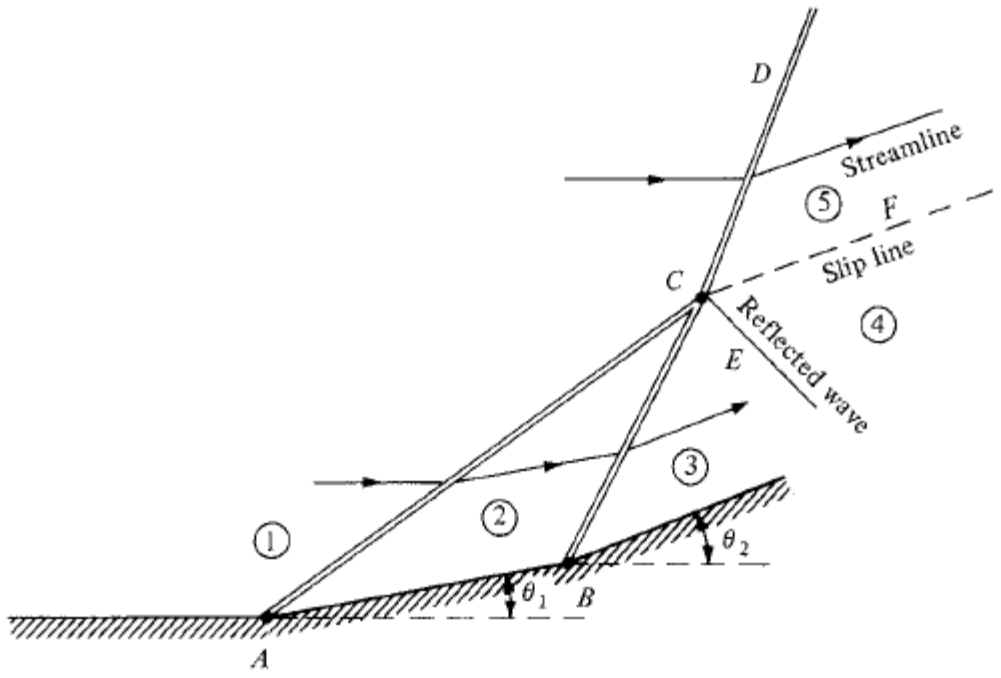
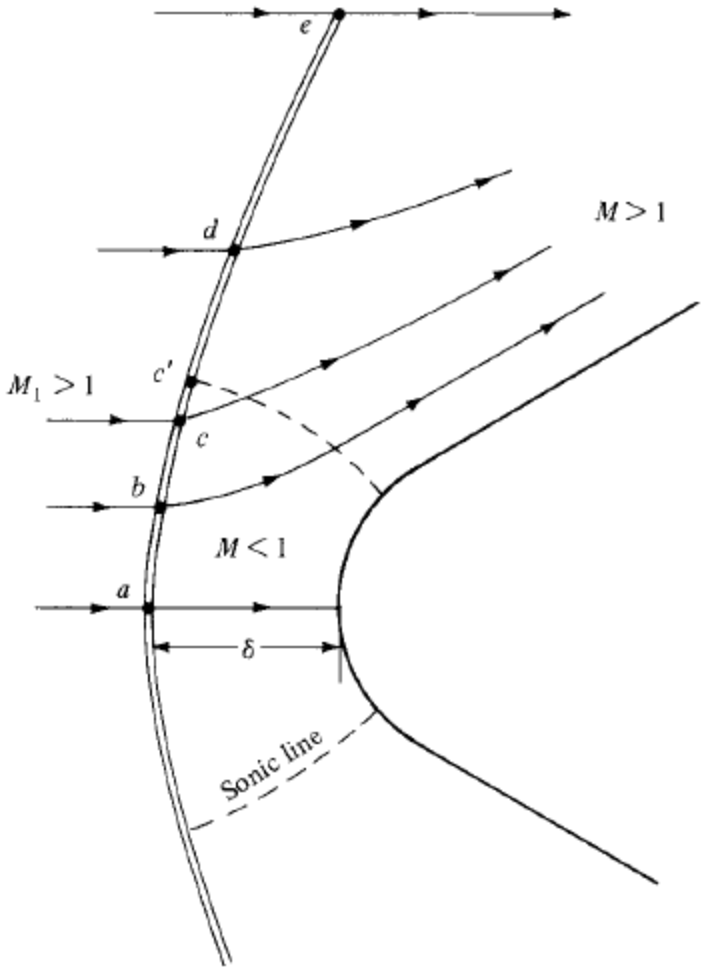
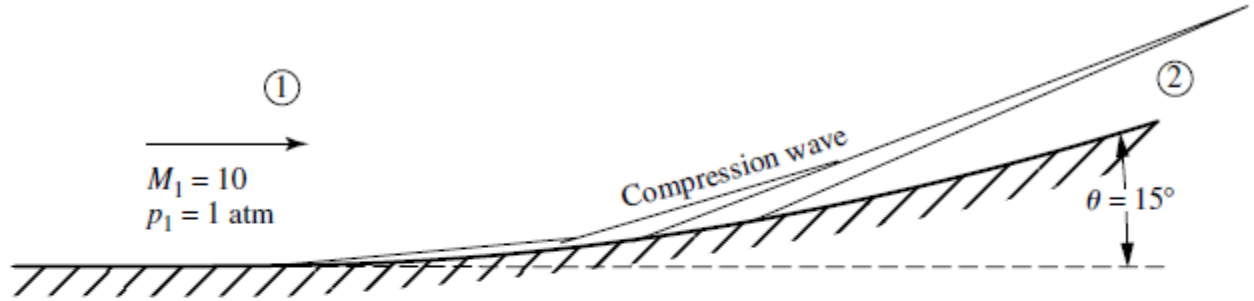

B
β_1
θ
Φ
Streamline
θ
3
Reflected shock
M_2
M_1
Incident shock
2
1
β_1
θ
A


θ

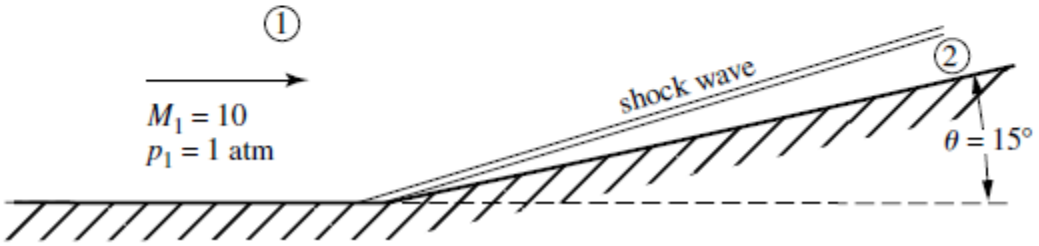

H
θ2
3
D
B
Slip line
4
E
F
M1 > 1
1
4'
C
A
2
θ1
G


D
Streamline
5
F
Slip line
C
4
Reflected wave
E
3
2
1
θ2
θ1
B
A


e
d
M > 1
M1 > 1
c'
c
b
M < 1
a
δ
Sonic line



(*a*) Isentropic compression corner



(*b*) Shock compression corner